



## QUALITY OF CARE AND OUTCOMES ASSESSMENT

### PREDICTORS OF DEFECT-FREE COMPLIANCE WITH PROCESS MEASURES IN PATIENTS PRESENTING WITH ACUTE MYOCARDIAL INFARCTION: INSIGHTS FROM GET WITH THE GUIDELINES CAD

ACC Poster Contributions

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**Background:** The 6 Get With The Guidelines (GWTG) process measures for acute myocardial infarction (AMI) are discharge on aspirin and beta-blockers, aspirin within 24 hours, patients with left ventricular dysfunction discharged on ACE inhibitor /ARB, smoking cessation counseling in current smokers, and use of lipid lowering drugs if serum cholesterol > 100 mg/dl. However, factors associated with 100% compliance with these measures have not been well studied.

**Methods:** Using data from the GWTG-CAD registry, we sought to determine significant baseline and in-hospital predictors of 100% compliance with all 6 measures in eligible patients presenting with AMI. Logistic multivariable regression models using generalized estimating equations were constructed.

**Results:** A total of 148,654 eligible patients treated at 405 hospitals across the United States between 2002 and 2009 were included, of whom 125,151 (84.2%) received defect-free compliance. The mean number of eligible measures per patient was 3±1.2. Multivariate predictors associated with defect-free compliance status are listed in Table 1.

**Conclusions:** A number of patient-level and hospitalization-related variables were identified as being significant predictors of defect-free care in patients presenting with AMI. Academic status was the only hospital level predictor of improved compliance. Targeted measures to increase compliance with the 6 process measures in vulnerable subgroups may be quite effective in further improving care quality.

Multivariate predictors of defect-free care		
Variable	Odds ratio (95% CI)	p-value
Demographic		
Age (per 10 year increment)	0.93 (0.92 - 0.95)	<0.0001
Female gender	0.88 (0.85 - 0.91)	<0.0001
Caucasian race	1.00 (0.96 - 1.05)	0.88
BMI (per kg/m <sup>2</sup> increment)	1.00 (0.99 - 1.00)	0.27
Primary insurance		
Medicare	0.85 (0.78 - 0.93)	0.0003
Medicaid	0.85 (0.76 - 0.96)	0.0085
Other	0.96 (0.88 - 1.05)	0.34
Uninsured	Reference	
Past medical history		
Diabetes mellitus	0.89 (0.82 - 0.96)	0.0015
Congestive heart failure	0.91 (0.87 - 0.97)	0.0013
Hypertension	1.26 (1.20 - 1.32)	<0.0001
Prior MI	1.12 (1.07 - 1.17)	<0.0001
Peripheral vascular disease	0.94 (0.90 - 0.99)	0.021
Renal insufficiency	0.84 (0.79 - 0.88)	<0.0001
History of stroke/TIA	0.95 (0.90 - 1.01)	0.09
Smoking	0.63 (0.59 - 0.68)	<0.0001
During index hospitalization		
Reperfusion performed	1.68 (1.58 - 1.77)	<0.0001
Ejection fraction < 40%	0.53 (0.50 - 0.56)	<0.0001
Calendar year (ascending order from 2002 to 2009)	1.43 (1.33 - 1.54)	<0.0001
Hospital characteristics		
Academic hospital	1.33 (1.02 - 1.73)	0.035
Cardiac surgery performed on-site	0.56 (0.31 - 1.00)	0.05
Time in GWTG program (per year)	0.99 (0.97 - 1.01)	0.40
Hospital bed size (per 100 units increment)	1.00 (0.99 - 1.00)	0.89
Rural hospital	0.85 (0.61 - 1.18)	0.34
Heart transplants performed at site	0.75 (0.49 - 1.15)	0.18
Full interventional capabilities	1.66 (0.95 - 2.88)	0.07
US region		
Northeast	1.11 (0.73 - 1.68)	0.64
Midwest	0.83 (0.59 - 1.17)	0.29
South	0.90 (0.68 - 1.20)	0.48
West	Reference	